Panasonic

DVD/CD PLAYER
DVD-S35/S31
Operating Instructions

DVD AUDIO / VIDEO

COMPACT disc DIGITAL VIDEO

For error-free handling of your appliance, please read these operating instructions carefully. Keep this manual for future reference.

Precautions

CAUTION	LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR / Class II
CAUTION	VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM. IEC60825-1 / Class 3b
ATTENTION	RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.
ADVARSEL	SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO!	AVATTAESSA OLET ALTTIINA NÄKYVÄÄ JA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING	SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN.
ADVARSEL	SYNLIG OG USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.
VORSICHT	SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
注意	打开时有可见及不可见激光辐射。 避免激光束照射。
注意	ここを開くと可視及び不可視レーザー光が出ます。 ビームを見たり、触れたりしないで下さい。 RQLCA0141

Back of product, see page 6

CLASS 1 LASER PRODUCT
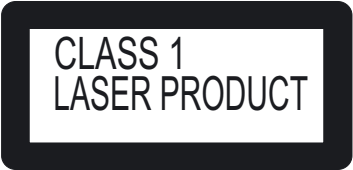
LUOKAN 1 LASERPLAITE
KLASS 1 LASER APPARAT

Dear customer
Thank you for trusting and purchasing this high-quality product. Panasonic is one of the leading companies of the consumer electronics industry.
We are sure that this DVD player will meet with all your expectations.

Voltage:
Do not use high voltage power sources. This can overload the unit and cause a fire.
Do not use a DC power sources. Check the source carefully when setting the unit up on a ship or other place where DC is used.

AC mains lead protection:
Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock.

Service:
Do not attempt to repair this unit by yourself. If sound is interrupted, indicators fail to light, smoke appears, or any other problem that is not covered in these instructions occurs, disconnect the AC mains lead and contact your dealer or an authorized service center.

Included accessories

Remote Control N2QAJB000069	**Remote Control Batteries** AA, UM3 or R6
AC Mains Lead RJA0043-1C	**Operating Instructions**
Audio/Video Cable K2KA6CA00001	**Guarantee Card**

Panasonic DVD PLAYER

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Warning

WARNING:
TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND ENSURE THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

CAUTION!

- **DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.**
- **DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.**
- **DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.**
- **DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.**

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

This product may receive radio interference caused by mobile telephones during use. If such interference is apparent, please increase separation between the product and the mobile telephone.

SUOMI

VAROITUS:
TULIPALO-, SÄHKÖISKUVAARAN TAI TUOTETTA KOHTAAVAN MUUN VAHINGON VÄHENTÄMISEKSI EI LAITETTA SAA ALTISTAA SATEELLE, KOSTEUDELLE, VESIPISAROILLE TAI ROISKEELLE, EIKÄ NESTETTÄ SISÄLTÄVIÄ ESINEITÄ, KUTEN ESIMERKIKSI MALJAKOITA, SAA ASETTAA LAITTEEN PÄÄLLE.

VAROITUS!

- **ÄLÄ ASENNA TAI LAITA TÄTÄ LAITETTA KABINETTITYYPPISEEN KIRJAKAAPPIIN TAI MUUHUN SULJETTUUN TILAAN, JOTTA TUULETUS ONNISTUISI. VARMISTA, ETTÄ VERHO TAI MIKÄÄN MUU MATERIAALI EI HUONONNA TUULETUSTA, JOTTA VÄLTETTÄISIIN YLIKUUMENEMISESTA JOHTUVA SÄHKÖISKU TAI ULIPALOVAARA.**
- **ÄLÄ PEITÄ LAITTEEN TUULETUSAUKKOJA SANOMALEHDELLÄ, PÖYTÄLIINALLA, VERHOLLA TAI MUULLA VASTAAVALLA ESINEELLÄ.**
- **ÄLÄ ASETA PALAVAA KYNTTILÄÄ TAI MUUTA AVOTULEN LÄHDETTÄ LAITTEEN PÄÄLLE.**
- **HÄVITÄ PARISTOT LUONTOA VAHINGOITTAMATTOMALLA TAVALLA.**

TÄMÄ LAITE ON TARKOITETTU KÄYTETTÄVÄKSI LEUDOSSA ILMASTOSSA.

LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

Tämä tuotteen toimintaan saattaa tulla häiriöitä lähellä olevasta matkapuhelimesta. Mikäli matkapuhelimesta johtuvia häiriöitä ilmenee, siirrä matkapuhelin mahdollisimman kauas laitteesta jotta häiriöt poistuvat.

3

The DVD player

Stand-by/On switch ⏻/I
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
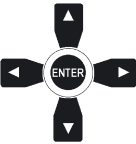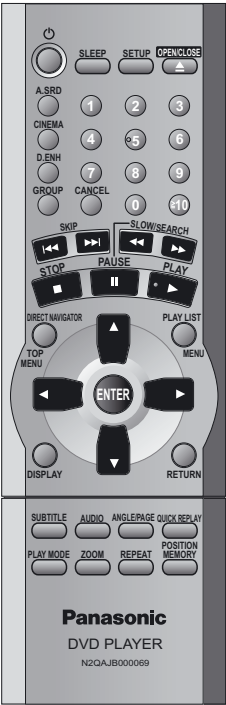
Stand-by indicator ⏻
When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.

ZOOM MODE	Press to zoom	page 19
SKIP ◄◄►►	Press to skip chapters, tracks or pictures	page 16
SEARCH ◄◄ ►►	Press to search (keep button pressed)	page 15
STOP ■	Press to stop playback	page 15
PAUSE ❚❚	Press to pause playback	page 15
PLAY ►	Press to start playback	page 15

Your DVD player provides a perfect reproduction of digital images stored on DVDs. Depending on the type of DVD, your hi-fi equipment or your stereo TV set you can play back stereo sound or digital multi-channel sound in excellent cinema quality. DVD video also features options for selecting the audio channel, the synchronised language, the language of subtitles and for choosing from various camera pick-up angles.

All basic functions of your DVD player can be controlled either via the unit or by means of the remote control. The remote control lets you make any changes to the device settings which will be retained when you switch off the player unit.

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The remote control unit

		Page
⏻	Switches on and off the DVD player from and back into stand-by mode	4
SLEEP	Switches off the unit at the set time	17
SETUP	Displays the SETUP menu (basic DVD player settings)	10-14
OPEN/CLOSE	Opens and closes the disc tray	15
A.SRD	ADVANCED SURROUND: Provides something similar to a surround effect	21
CINEMA	Enhances the contrast of pictures	21
D.ENH	DIALOGUE ENHANCER: Puts up the volume of the dialogue tone	21
GROUP	On-screen display of groups of tracks	22
CANCEL	Discards entries	11
0...9 ⑩	Numeric key pad; input of two-digit numbers	20
SKIP◀◀ ▶▶	Press to skip chapters, tracks or pictures	16
SLOW/SEARCH◀◀ ▶▶	Slow motion and search function	15
STOP ■	Stops playback	15
PAUSE ❚❚	Pauses playback	15
PLAY ▶	Starts playback	15
DIRECT NAVIGATOR/		
TOP MENU	Displays the main menu	25,26
PLAY LIST/MENU	Displays the menu	24,25,26
DISPLAY	Enables the on-screen display	22-24
RETURN	Quits a menu	9,10
SUBTITLE	Selects the language of subtitles	22
AUDIO	Changes the audio track	22
ANGLE/PAGE	Chooses from various camera angles; turns menu pages	22,24
QUICK REPLAY	Repeats the last couple of seconds of the current playback	16
PLAY MODE	Random play/Programme play	17,20
ZOOM	Zoom function during playback	19
REPEAT	Repeat function	19
POSITION MEMORY	Resumes playback at stored position following an interruption	18

Cursor keys

ENTER to accept the menu function you selected

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Connections

Before you make any connections

- Verify that all devices to be connected up are unplugged from the AC mains.
- Read the operating instructions of your TV set.
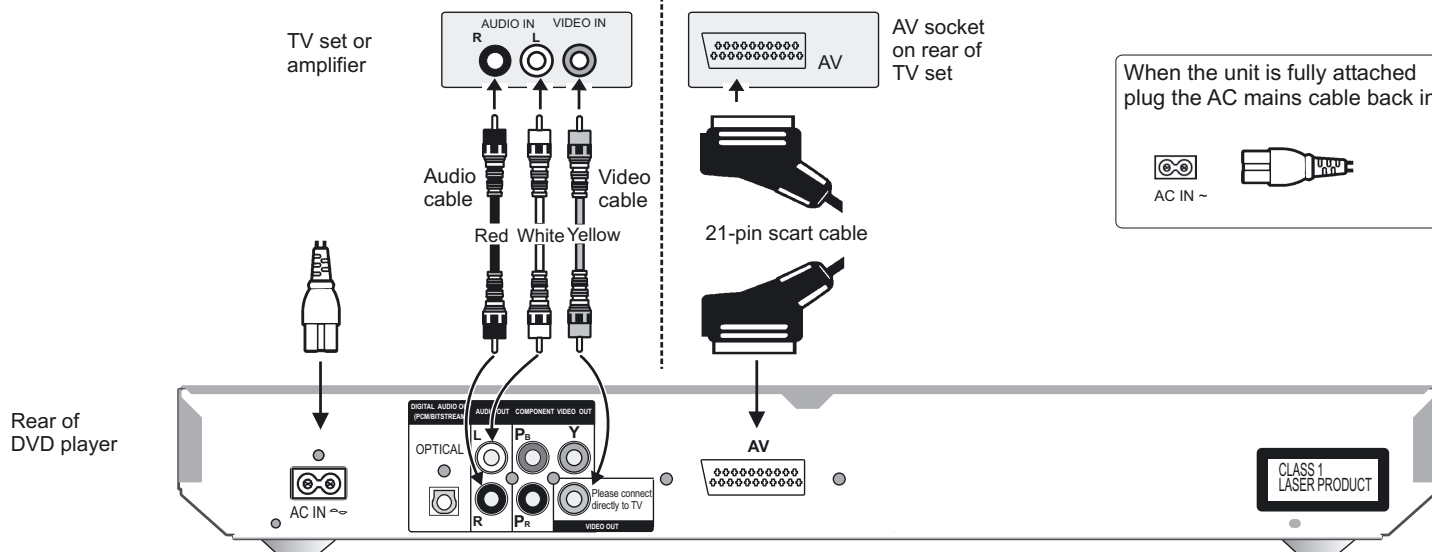
Attach the unit as illustrated on this page.

Note on all connections shown

Attach the unit directly to the TV set. If you let the player connection go through a video recorder you will experience a disturbed picture when playing copy-protected DVDs.
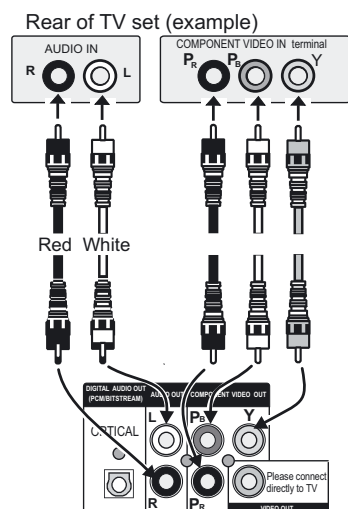
To avoid sound quality problems deactivate function A.SRD (Advanced Surround) when you attach an amplifier with Dolby Pro Logic functionality.

Connection to a TV set without a scart socket or to an amplifier component (home cinema):

Connection to a TV set with scart socket:

TV set or amplifier

AUDIO IN   VIDEO IN
R   L

Audio cable

Video cable

Red   White   Yellow

AV socket on rear of TV set

AV

21-pin scart cable

When the unit is fully attached plug the AC mains cable back in

AC IN ~

Rear of DVD player

AC IN ~~

DIGITAL AUDIO O (PCM/BITSTREAM

OPTICAL

AUDIO OUT   COMPONENT VIDEO OUT
L   P_B   Y

R   P_R
VIDEO OUT

Please connect directly to TV

AV

CLASS 1 LASER PRODUCT

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Connections

Rear of TV set (example)

AUDIO IN

R ◯ ◯ L

COMPONENT VIDEO IN terminal

P$_R$ ◯ P$_B$ ◯ ◯ Y

Red White

DIGITAL AUDIO OUT (PCM/BITSTREAM)

AUDIO OUT COMPONENT VIDEO OUT

L P$_B$ Y

OPTICAL

Please connect directly to TV

R P$_R$ VIDEO OUT

COMPONENT VIDEO OUT terminal

The Component Video Out terminal separately outputs the colour difference signals (PB/PR) and the brightness signal Y, thus providing for an enhanced resolution and colour response.

- The labelling of the Component Video In terminal may differ depending on the TV set or monitor you use (e.g. Y/P$_B$/P$_R$,Y/B-Y/R-Y, Y/C$_B$/C$_R$).
Please refer to the operating instructions of your TV set.

- Attach the cables as shown on the illustrations. Make sure not to confuse the colours of cables or the labels of sockets.

Batteries
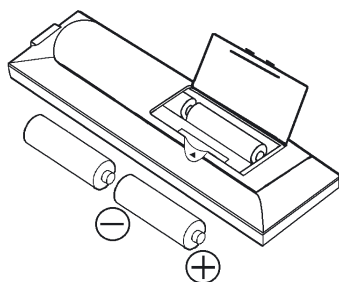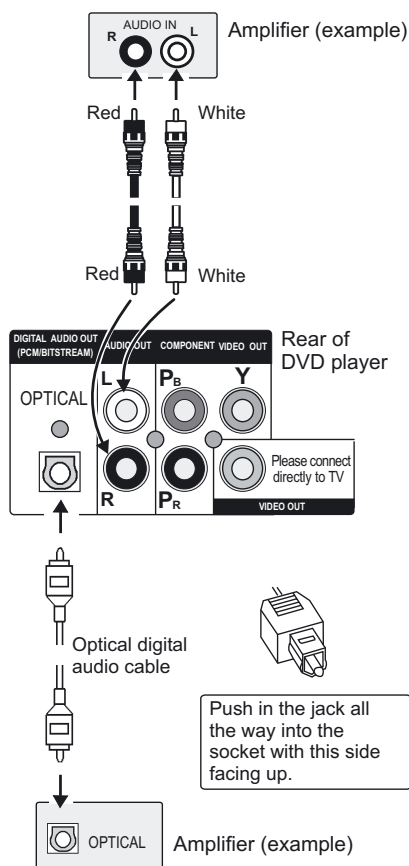

Inserting batteries into the remote control unit:

The batteries last for about a year, depending on how often you use the RC unit.
- Do not mix old with new batteries or batteries of different types.
- Only use batteries without any harmful substances (such as lead, cadmium, mercury).
- Do not use rechargeable type batteries.
- Remove the batteries if the remote control unit is not used for longer periods of time.
- Do not heat or short-circuit the batteries.
- Immediately remove used-up batteries and replace with batteries of type AA, UM3 or R6.
- Be sure not to confuse the polarity $\oplus$ and $\ominus$.

Dispose of **batteries**, packaging material and the unit **according to statutory regulations**. They must not be thrown into the household refuse.

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Home cinema

AUDIO IN L R — Amplifier (example)

Red — White

Red — White

DIGITAL AUDIO OUT (PCM/BITSTREAM) — AUDIO OUT — COMPONENT VIDEO OUT

Rear of DVD player

OPTICAL

L — P_B — Y

R — P_R — VIDEO OUT

Please connect directly to TV

Optical digital audio cable

Push in the jack all the way into the socket with this side facing up.

OPTICAL — Amplifier (example)

Analogue connection (AUDIO OUT):

To be able to hear sound in stereo or Dolby Pro Logic quality, attach an amplifier or an analogue audio component supporting these features.

Connect the analogue outputs (L and R) with a "Dolby Pro Logic amplifier", for example. Attach the audio cables as shown on the illustrations. Make sure not to confuse the colours of cables or the labels of sockets (white/L, red/R).

- To avoid sound quality problems deactivate function A.SRD (Advanced Surround) when you attach an amplifier with Dolby Pro Logic functionality. Please refer to page 21.

Digital connection (OPTICAL):

For optimum surround sound, connect a digital amplifier or a digital audio component. To play programmes with a 5.1-channel surround sound, connect the digital audio output (OPTICAL) with an external "Multi-channel Dolby Digital amplifier", for example.

**Prerequisites for making recordings with an external digital recorder :**
- The original disc must not be copy-protected.
- The recorder must be able to process signals with a sampling frequency of 48 kHz/16 bit.
- You cannot make recordings from MP3/WMA.

Adapt the settings of SETUP menu **Audio** (see page 13) to the following:
- PCM Down Conversion : Yes
- Dolby Digital   : PCM
- DTS Digital Surround   : PCM
- MPEG   : PCM
Deactivate function A.SRD (Advanced Surround) (see page 21).

8
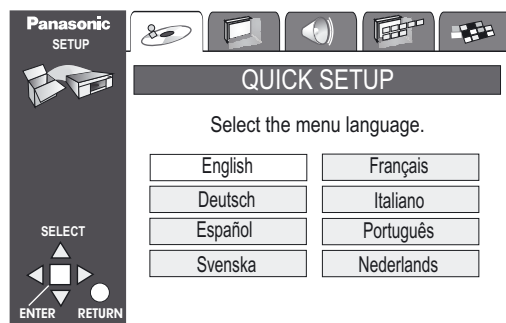
Basic settings

QUICK SETUP

When the appliance is properly connected press ⏻ to switch on the unit.
Press the **SETUP** button on your remote control unit to display the QUICK SETUP menu which allows you to make some basic settings. Navigate the user-friendly and clearly arranged on-screen menu by means of the cursor keys ◄►▼▲ on the remote control unit.
Every menu item provides further information on the options you have.
• **ENTER** accepts your selection.
• **RETURN** takes you back to the previous on-screen menu.

First of all, choose the **menu language**.

Select the audio/subtitle language :
If the language you want is not on the list, go to item "Other" and type in the appropriate language code (page 30) using the numeric key pad of your remote control unit.

Select your TV's aspect ratio :
The format of TV screens is either 4:3 (standard) or 16:9 (wide-screen).
Select the aspect ratio that matches the screen setting of your TV set.

Select the output combination for the AV and component terminals :
Before you proceed please check which setting is supported by your TV set.
Please refer to the operating instructions of your TV set.
AV : To improve the quality of the picture, you can set the video signal output via the terminal from "Video/Y PB PR" (standard quality) to either "S-Video/Y PB PR" (enhanced quality) or "RGB/No Output" (best quality).
S-Video and **RGB:** Requires a 21-pin scart cable.
Component Video Out : Select "Video/Y PB PR" or "S-Video/Y PB PR".

9
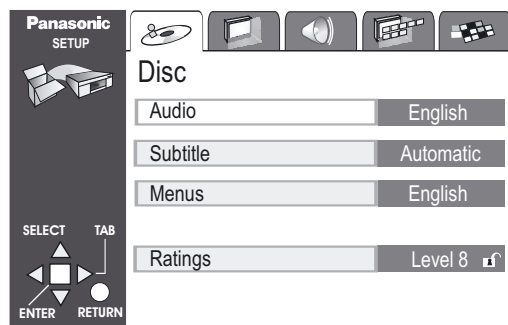
SETUP menu

Options of the SETUP menu

The SETUP menu contains options concerning menu items "**Disc**", "**Video**", "**Audio**", "**Display**" and "**Others**".
A clearly arranged on-screen menu guides you to and through the options.

- **SETUP** displays the SETUP screen.
- To select one of the SETUP sub-menus (e.g. "**Disc**") press ◀▶.
- To select the option to be changed press ▼▲ , then press **ENTER** to confirm.
- To select a setting press ◀▶▼▲ , then press **ENTER** to confirm.

- **RETURN** takes you back to the previous screen
- **SETUP** quits the menu

Audio :
Select a dialogue language as appropriate.
The menu lists eight languages for you to choose from.
"Original" : The primary language on the disc is played.
If the language you want is not on the list, go to item "Other" and type in the appropriate language code (page 30) using the numeric key pad of your remote control unit.

Subtitle :
Select a subtitle language as appropriate.
Select the "Automatic" display of subtitles if the disc contains no track with a dialogue language recording.
To select another language for the subtitles proceed as described in section **Audio**.

Menus:
Select the language for the disc menus.
Proceed as described in section **Audio**.

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SETUP menu

Ratings

Assign a rating to disallow the viewing of some scenes (1-7) or the entire DVD-Video disc (0).
This feature is not supported by all DVD-Video discs.

Ratings
8 No Limit
7
6
5
4
3
2
1
0 Lock All

To select a rating (factory setting is "8")

When you select a rating between 0 and 7 you will be automatically prompted for a password.
• Type in a 4-digit code using the numeric key pad of your remote control unit.
• **ENTER** confirms your entry.
• Press ◀ or **CANCEL** to delete any mistakes.
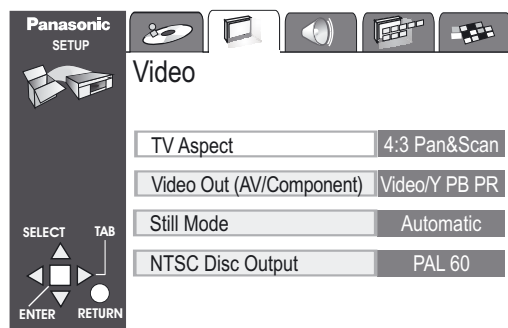The picture of a closed padlock tells you that the system is locked.

Make sure not to forget your password code.

Unlock Player
Change Password
Change Level
Temporary Unlock

To change the setting:
• Type in your password code.
• **ENTER** confirms your entry.
• Select a new setting.
• **ENTER** confirms your entry.

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SETUP menu

Panasonic SETUP	Video				
TV Aspect			4:3 Pan&Scan		
Video Out (AV/Component)			Video/Y PB PR		
Still Mode			Automatic		
NTSC Disc Output			PAL 60		

SELECT   TAB
ENTER   RETURN

TV Aspect :

The format of TV screens is either 4:3 (standard) or 16:9 (wide-screen).
Choose the 16:9 format if your player is attached to a wide-screen TV set.
If it is attached to a standard TV screen you can choose either 4:3 Pan&Scan
or 4:3 Letterbox (see illustration):

Pan&Scan:
Automatically crops a 16:9 picture and turns it into an optimum 4:3
picture producing neither black bars nor distortions.
* This format is not supported by all DVDs.

Letterbox:
Black bars will appear at the top and bottom edge of the screen to
allow the reproduction of wide-screen video material on a standard
TV screen.

Video Out (AV/Component) :

Please refer to page 9, "Basic settings" : "Select the output combination for the AV
and component terminals".

Still Mode :

Every picture frame is made up of two fields which are output to the screen one
after the other.
Automatic:
The unit automatically selects the optically better type of image.
Field:
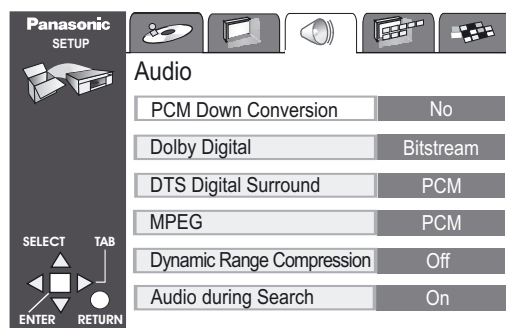Poorer quality than a frame-based image; however, the image is less fuzzy.
Frame:
Both fields of a picture alternate on the screen. Although the image may be
somewhat fuzzy, its quality is better than that of a field-based still image.

NTSC Disc Output :

To play a NTSC disc, select a colour rendition standard (NTSC/PAL60) that
matches the function of your TV set.
Please refer to the operating instructions of your TV set.

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SETUP menu

Panasonic SETUP					
Audio					

PCM Down Conversion	No
Dolby Digital	Bitstream
DTS Digital Surround	PCM
MPEG	PCM
Dynamic Range Compression	Off
Audio during Search	On

SELECT   TAB

ENTER   RETURN

PCM Down Conversion : Pulse Code Modulation

PCM is the standard method used to record digital music signals on audio CDs. DVD-Videos can be produced using the linear PCM method which is based on a sampling frequency of up to 96 kHz.

For reasons of copyright protection, the digital output of PCM audio signals may be limited to 48 kHz/16 bit.

Select "Yes" if an optical digital audio cable is used to connect your player to an amplifier that only processes sampling frequencies of up to 48 kHz.

Dolby Digital/DTS Digital Surround/MPEG :

Please choose the correct settings matching your audio system:

	Your equipment can not decode the signal	Your equipment can decode the signal
Dolby Digital	PCM	Bitstream
DTS Digital Surround	PCM	Bitstream
MPEG	PCM	Bitstream

* If the equipment you connected cannot decode the signal, the setting must be changed to PCM. If not, signals that the equipment cannot process will be output by this unit causing high levels of noise which can damage your hearing and the speakers

Dynamic Range Compression :
**Available in the Dolby Digital (DVD) format only.**

This function compresses the volume range by putting up the level of soft passages and lowering the level of loud passages, e.g. to turn down the overall volume late at night.

This option allows you to say whether or not the volume range is to be compressed.

Audio during Search :

Lets you decide whether or not the sound is to be on during the search.

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SETUP menu
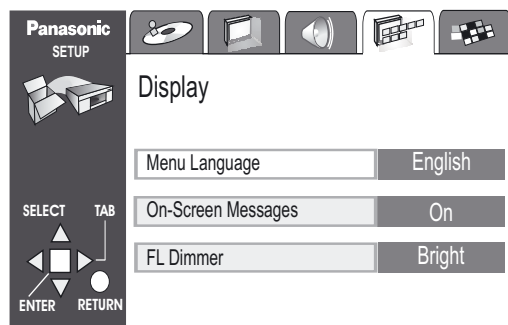
**Menu Language :**
Select a menu language as appropriate.

On-Screen Messages :
The TV screen displays the commands you give by pressing the buttons on the remote control unit.
Select "Off" to suppress the display of on-screen commands.

FL Dimmer :
You can set the brightness of the display panel elements to "Bright", "Dim" or "Auto".
If you choose "Auto": The display panel elements will be dimmed during playback and their brightness increased when you press function buttons such as **SLOW/SEARCH** or **PAUSE**.
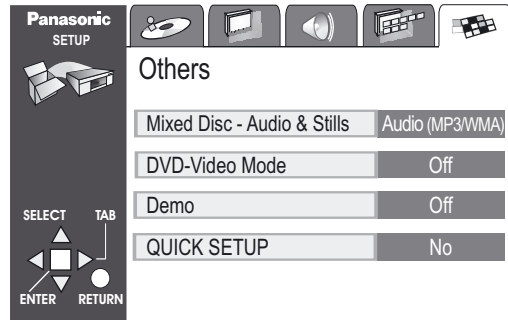
Mixed Disc - Audio & Stills :
Your DVD player can play back/display discs in the MP3/WMA (audio) and JPEG (image) formats. Select a playback format (JPEG or MP3/WMA) if the disc provides data in both formats.

DVD-Video Mode :
Playing back a DVD-Audio disc in DVD-Video mode ("On") allows you to play the DVD-Video section of the DVD-Audio disc.
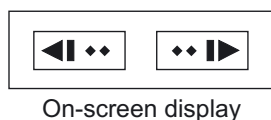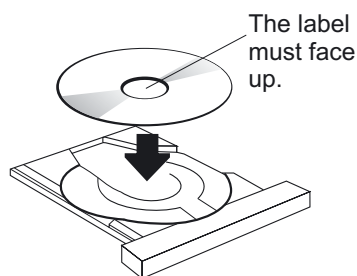This feature is not supported by all discs.

Demo:
Select "On" to start a presentation of the different displays that the player can output to the TV screen.
Press **SETUP** to return to the SETUP menu.

QUICK SETUP:
Please refer to page 9 "Basic settings".

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General playback

Preparation

Switch on the TV set and set it to the video input that matches the connection between player and TV set.

The label must face up.

Playback

`DVD-V` `DVD-A` `RAM` `VCD` `CD` `MP3` `WMA` `JPEG`

- **OPEN/CLOSE** ⏏ opens the disc tray.
- Place the disc on the disc tray.
- **PLAY** ▶ closes the disc tray and automatically starts playing back the disc.
  The player may take some time to read all of the disc information!
- ***** MP3, WMA, CD Text : outputs some track information to the TV screen.
- **SUBTITLE** to display/quit the track information on TV screen.

To pause playback
- **PAUSE** ❚❚ during playback.
- **PLAY** ▶ resumes playback.

To stop playback
- **STOP** ■ twice one after the other.
  See page 16 "Resume function"

Slow motion

`DVD-V` `DVD-A` `RAM` `VCD`

On-screen display

- **SLOW** ◀◀ ▶▶ (slow motion playback forwards or backwards) in pause mode.
- The speed of slow playback will increase in 5 steps while the relevant button keeps being pressed.
- **PLAY** ▶ resumes playback at normal speed.
- ***** VCDs do not support reverse slow motion playback.

Search function

`DVD-V` `DVD-A` `RAM` `VCD` `CD` `MP3` `WMA`

On-screen display

- **SEARCH** ◀◀ ▶▶ during playback.
- The speed of search will increase in 5 steps while the relevant button keeps being pressed.

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General playback

Scene replay

• **QUICK REPLAY** during playback.

Every push of the button replays a couple of seconds of the current item; on a JPEG disc it will take you back a couple of pictures.

However, you cannot go back to before the beginning of an item.

∗ **QUICK REPLAY** is not supported by all discs.

Frame-by-frame

In pause mode, press remote control buttons ◄►. Every push of one of these buttons takes the film a single frame forwards or backwards. Keeping one of these buttons pressed continuously displays the next single frame in the chosen direction.

You can also use button ❚❚ to move the film forward a single frame at a time.

∗ VCDs do not support a backward motion by single frames.

Resume function

This function allows you to interrupt the playback of a disc.

• **STOP** ■ during playback to store the current position on the disc.
• **PLAY** ▶ while " ▷ " is flashing on the display.

Playback will be resumed at the point where you stopped it.

To cancel the Resume function

• **STOP** ■ until " ▷ " is no longer displayed.

∗ The resume function is available only if the elapsed time is displayed during playback. The stored position will be cleared when you open the disc tray or when the unit goes into stand-by mode.

Skipping chapters, tracks or pictures

• **SKIP** ◄◄ ►► during playback or in pause mode. Every push of one of these buttons will increment the count of chapters, tracks or pictures skipped by 1.

16

General playback

Automatic switch-off

This function allows you to specify a playback time (e.g. 90 min.) after which the unit is to automatically switch itself off.

- **SLEEP**, the SLEEP dialogue is output to the display and the TV screen.
  Repeatedly press the button to browse the settings:
  OFF ➔ AUTO ➔ 60 min ➔ 90 min ➔ 120 min

* **AUTO** : The unit switches itself off 5 minutes after the end of the playback time.
* **AUTO** is not possible if you press **STOP**, **MENU** or **TOP MENU**.
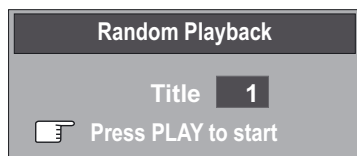* Some discs do not fully support all of this function.

To clear the setting
- **SLEEP**, then choose "OFF".

To check the time remaining
- **SLEEP**.

Automatic switch-off: After approx. 30 minutes in Stop mode, the player automatically goes into stand-by mode, irrespective of the sleep timer setting.

Random playback

Plays all chapters/tracks once each in a random order.
- **PLAY MODE** in Stop mode. The "PROGRAM" screen is displayed.
- Press **PLAY MODE** again to display the "Random Playback" screen.
* DVD-V/ DVD-A : Press ▼▲ or the numeric keys of the remote control unit to select or specify the title/group to be played in a random order.
- **PLAY ▶** to start random playback.

```
Random Playback

Title     1
☞ Press PLAY to start
```

```
DVD- V
  RND     RANDOM
```

To cancel the random play function
- **PLAY MODE** in Stop mode.

17

General playback

POSITION MEMORY

Use the **Position Memory** function if you wish to resume disc playback at a particular position.

The position tag is retained when you change discs or when the unit goes into stand-by mode.

You can tag and directly access up to 5 discs.

This function is available only if the elapsed playback time is displayed when playing the disc.

Position memorized ● ○ ○ ○ ○

* **POSITION MEMORY** during playback.
* The "Position memorized" box will be displayed.
* You can now press ⏻ to go into stand-by mode or change discs.
* **PLAY** ▶ to replay the disc again. Playback will be resumed at the stored position and the position tag will be cleared.

Position cleared ○ ○ ○ ○ ○

* Some discs do not fully support all of this function.

Chapter review
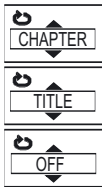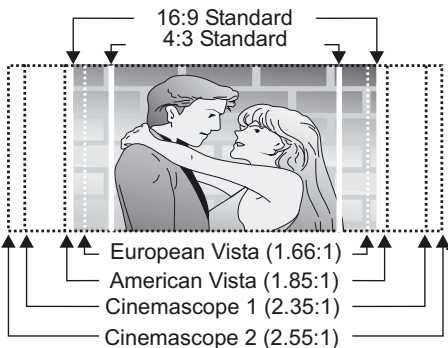
This function lets you browse back through the chapters of a DVD-V by playing the first couple of seconds of every chapter.

* **STOP** ■ during playback.
* **PLAY** ▶. Screen "Press PLAY to Chapter Review" is displayed.
* **PLAY** ▶. The first couple of seconds of every chapter are played back.
  Normal playback will be resumed at the point where you stopped it.

* Do <u>not</u> press **PLAY** ▶ if you do not wish to browse back through the chapters.
  After a couple of seconds, normal playback will be automatically resumed at the point where it was stopped.

18

General playback

Preset Zoom Mode :

16:9 Standard
4:3 Standard

European Vista (1.66:1)
American Vista (1.85:1)
Cinemascope 1 (2.35:1)
Cinemascope 2 (2.55:1)

↻ ▲
CHAPTER ▼

↻ ▲
TITLE ▼

↻ ▲
OFF ▼

VCD ► PBC

ZOOM

This function allows you to zoom into the picture to make better use of the available screen space. The setting can be changed via the remote control unit or the appliance.

- **ZOOM** during playback.
- Using the remote control buttons:
  Press ▼▲ to set the zoom factor; to select a zoom mode: **ENTER** and ◄►.
  Or press the **ZOOM MODE** button on the appliance:
  Manual Zoom Mode ➜ Preset Zoom Mode ➜ Zoom Mode Off

To restore the original ratio
- **ZOOM** until x 1.00 is displayed.
  The original ratio is also restored by opening the disc tray or when the unit goes into stand-by mode.
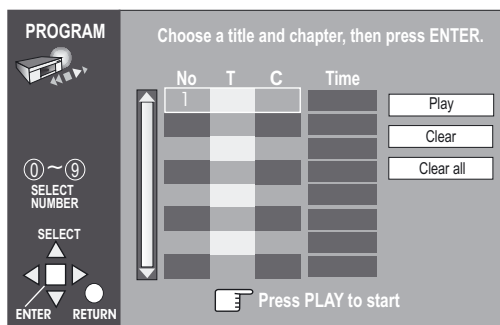- ***** The zoom functionality may be restricted depending on the disc format.

REPEAT

- **REPEAT** during playback. Repeatedly press the button to browse the settings as follows:

DVD-V	↻	Chapter	⟶	Title	⟶	Off
DVD-A	↻	Track	⟶	Group	⟶	Off
RAM	↻	Program	⟶	All	⟶	Off
	↻	Scene	⟶	Playlist	⟶	Off
VCD/CD	↻	Track	⟶	All	⟶	Off
MP3/WMA	↻	Track	⟶	Group	⟶	Off
JPEG	↻	Group	⟶	Off		

* The repeat function is available only if the elapsed time is displayed during playback. There is no mode that allows you to repeatedly play back entire DVD, WMA, JPEG or MP3 discs.

Repeating a VCD using playback control (PBC)
- **STOP** ■ during playback until "PBC" disappears from the display.
- Type in the number of the CD track using the RC unit's numeric key pad.
- **REPEAT**. The display shows "TRACK REPEAT" or "ALL REPEAT".

19

Programme play

```
┌─────────────────────────────────────────────┐
│ PROGRAM     Choose a title and chapter, then press ENTER.
│  ▱▷▷                                         │
│             No   T   C      Time             │
│             1                        │ Play  │
│                                      │ Clear │
│  ⓪～⑨                               │ Clear all │
│  SELECT                                      │
│  NUMBER                                      │
│                                              │
│   SELECT                                     │
│     ▲                                        │
│   ◄   ►      🖝 Press PLAY to start          │
│     ▼                                        │
│  ENTER  RETURN                               │
└─────────────────────────────────────────────┘
```

Programme play

DVD-V | DVD-A | VCD | CD | MP3 | WMA

You can programme up to 32 chapters/tracks to be played in any order.
- **PLAY MODE** in stop mode until the "PROGRAM" screen appears.
- Type in the numbers using the RC unit's numeric key pad.
∗ MP3 and WMA : Press **ENTER** to confirm your selection.
- **PLAY ▶**. Playback will start in the programmed order.
∗ Certain discs may not provide this function.

To select a number using the cursor keys:
- **ENTER**.
- To select an item press ▼▲.
- **ENTER** to store that number.
- **PLAY ▶**. Playback will start in the programmed order.

To modify entries
- To select an entry press ▼▲.
- **ENTER**.
- Modify the entry as appropriate.
- **ENTER** to store the modified entry.

To delete entries
- To select an entry press ▼▲.
- Choose "Clear".
- Select "Clear all" to clear all entries.
- **ENTER** accepts your selection.

To quit the programme play mode
- **PLAY MODE** in stop mode until the programme play screen disappears.
  The actual programme will be retained.
∗ Switching off the player or opening the disc tray will clear the programme.

Playing back a particular track or title

DVD-V | DVD-A | RAM | VCD | CD | MP3 | WMA | JPEG

Type in a number using the RC unit's numeric key pad.
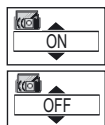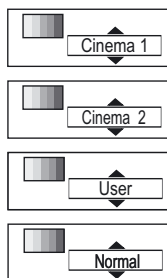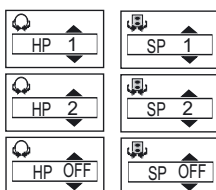For example, to select title 23:
DVD/RAM/VCD/CD : Press ⊜10 + ② + ③.
MP3/WMA/JPEG : Press ② + ③ + **ENTER**.
The unit will automatically start playing the selected track or title.

∗ Certain discs may not provide this function at all or only if the appliance is in stop mode.

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Other functions

ADVANCED SURROUND

DVD-V RAM VCD

With 2 or more audio channels only

Produces an effect similar to surround sound at the two front speakers (SP) or the headphones (HP).

• **A.SRD**

Repeatedly press the button to browse the settings.

Press ◀ and ▼▲ to toggle between SP and HP:

SP 1/HP 1 :   Normal rate of effect

SP 2/HP 2 :   Enhanced rate of effect

SP OFF/HP OFF : Advanced Surround effect off (factory default)

* ADVANCED SURROUND is not supported by all discs.

* Deactivate the Advanced Surround effect if you experience distorted sound.

* Deactivate ADVANCED SURROUND if you are also using Dolby Pro Logic. Dolby Pro Logic will not work properly if ADVANCED SURROUND is on.

CINEMA

DVD-V DVD-A RAM VCD JPEG

You can manipulate the picture quality of films:

• **CINEMA**

Press ▼▲ to select the individual settings:

CINEMA 1   : Improved contrast of details of dark scenes.

CINEMA 2   : Improved brightness setting for dark scenes.

USER   : User-defined colour, contrast and brightness settings

                  S35 only : Picture sharpness, gamma (brightness distribution).

NORMAL   : Normal : Factory default.

DIALOGUE ENHANCER

DVD-V

Available in the Dolby Digital format and DTS with 3 or multiple channels only.

Puts up the volume of dialogue sound to make dialogues heard better in feature films:

• **D.ENH**

Repeatedly press the button to browse the settings:

DIALOGUE ENHANCER ON

DIALOGUE ENHANCER OFF: Factory default.

* The D.ENH function is not supported by all discs.

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On-screen displays

You can display on-screen information on disc and player (OSD) and manipulate various settings. Some DVD- discs do not support all of the settings. Please use the DVD menu instead.

- **DISPLAY** during playback. Enables the on-screen display feature.
- Use the cursor keys ▼▲ ◄► to make or change various settings.
- Some entries need to be confirmed by pressing **ENTER**.
- **DISPLAY**. The Progress Indicator will be displayed.

ⓣ **1**	ⓒ **2**	x1.0 ►	🕐 **0 : 03 : 10** ⬍

- Press ◄► to change the playback speed (DVD-V: Dolby Digital only).
- Press ▼▲ to display the elapsed and the remaining playback time.
- Press **DISPLAY** again. Now use the cursor keys ▼▲ to select any of the menu items (**Play Menu, Display Menu, Audio Menu, Picture Menu**).
- **RETURN** hides the on-screen displays.

DVD-V   RAM   CD   JPEG
DVD-A   VCD   MP3/WMA
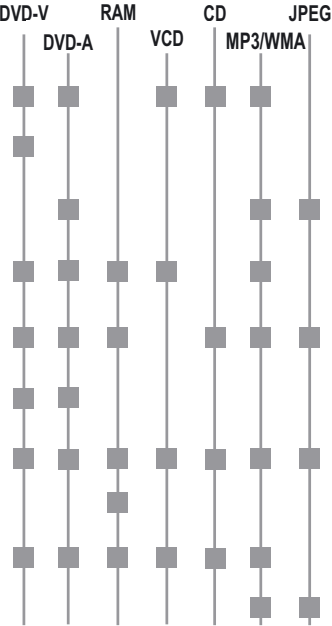
ⓣ **Title** or **Track:** Allows you direct access to a title/track if the disc hosts several.

ⓒ **Chapter:** Allows you direct access to a chapter if the disc hosts several.

ⓖ **Group:** MP3/WMA or DVD-A tracks or JPEG pictures defined to make up a group. You can also provoke an on-screen display by pressing the **GROUP** button on your remote control unit.

🔊 **Audio:** Allows you to alter the pre-set language of synchronisation provided the disc gives you an alternative. RAM/VCD: Sets the right or left audio channel.

Subtitle: Selects the language of subtitles and sets their on-screen position and brightness. JPEG: Picture information; FULL: Displays all information; DATE: Displays the date; OFF: No display.

Angle: Change between camera angles of films recorded from various camera locations.

Bar Position: You can move the OSD displays around to another place on the TV screen.

🅟ⓖ **Program:** Programmes stored on a DVD RAM (page 25).

🕐 **Time:** Display/select playback time (DVD-V,DVD-A,RAM: numeric keys). DVD-V,DVD-A,RAM,VCD, CD: Alternative display of elapsed or remaining playback time. MP3,WMA,SVCD: Playback time only.

Total **Total:** Number of track/picture selected plus total number of items in selection.

22

On-screen displays

DVD-V	RAM	CD	JPEG
DVD-A	VCD	MP3/WMA	

℗Ⓛ **Playlist:** see page 25

Ⓟ **Picture:** Displays the number and name of a picture you selected from a group.
Type in the number to display a picture.

Zoom: Zoom function (see page 19).

Bit **Bitrate Display:** Displays the video image data rate per second (Mbps) (S35 only).

☀ **OSD Brightness:** User-defined brightness of OSD displays.

Advanced Surround: Produces an effect similar to surround sound at the two front speakers
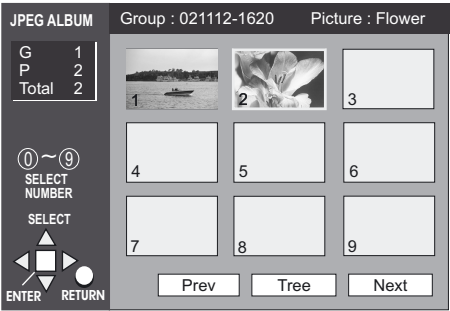(SP) or the headphones (HP). Deactivate the function if the sound becomes distorted (page 21).

Dialogue Enhancer: Puts up the volume of the dialogue tone of feature films (page 21).

Picture Mode: "Cinema 1", "Cinema 2", "User", "Normal", (page 21).

Repeat Mode: Repeat function (page 19).

A-B Repeat: Allows you to keep repeating a defined section between positions A and B of an item.
★ ★ Press **ENTER** to set starting point A and end point B.
If you do not specify an end point, the player will assume the end of the item to be point B.
Press **ENTER** again to cancel the function.

Play Mode Display: "---" : normal playback, "RND" : Random play, "PGM" : Programme play.

Marker: Press **ENTER** to mark up to 5 (DVD-RAM: up to 999) positions.
Press **CANCEL** to delete any mistakes. During playback you can press ◄► to directly access
specific scenes. Opening the disc tray or switching off the unit clears all markers.
This function is not available in the Random or Programme modes.

Slideshow: On-screen presentation On or Off. Set the time per picture between 0 and 30 seconds.

Page/Still Picture: Displays the selected picture during playback.

23

JPEG

Your DVD player can output JPEG pictures (Exif version 2.1) that were taken with a digital camera, for example, or generated by means of any other system.
The resolution should range between 320 x 240 pixels and max. 6144 x 4096 pixels.
Note that JPEG files must be extended by ".JPG", ".jpg", ".JPEG" or ".jpeg" and compressed in format 4:2:2 or 4:2:0.

• **MENU** displays the album of JPEG pictures.
• Use the cursor keys ◄►▼▲ and **ENTER** to select the pictures.
• Press "**Prev**" or "**Next**" and **ENTER** to page through the album.
• Menu item "**Tree**" controls the group directory.
• Press ▼▲◄► and **ENTER** to take your pick.
• **RETURN** or **MENU** quit the menu screen.

To rotate pictures
• **ANGLE/PAGE** while the picture is being displayed.
• Press ▼▲ to select the direction of rotation.
• Press **ENTER** to actually rotate the picture to the desired position.
• **RETURN** quits this menu.

To skip groups
• Press ▼▲ in picture mode to skip forwards and backwards.

To activate the JPEG on-screen displays
• **DISPLAY** while pictures are being displayed.
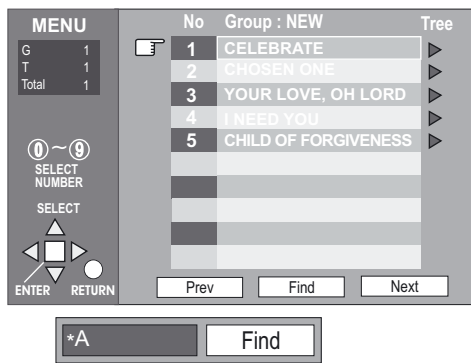 The on-screen displays will appear.

• **DISPLAY**.
  The Progress Indicator will be displayed.

Refer to pages 22-23 to learn more about how to use the on-screen displays (OSD).

24

MP3 / WMA menu

MENU		No	Group : NEW		Tree
G	1	1	CELEBRATE		▷
T	1	2	CHOSEN ONE		▷
Total	1	3	YOUR LOVE, OH LORD		▷
		4	I NEED YOU		▷
		5	CHILD OF FORGIVENESS		▷

⓪ ~ ⑨
SELECT NUMBER

SELECT

ENTER   RETURN

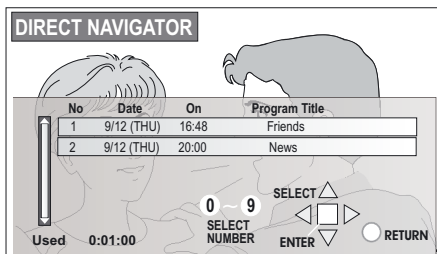|		
Prev	Find	Next

*A	Find

• **MENU** to display/quit the menu.
• ▲▼ and **ENTER** to select a track.
• ▶ to expand the "Tree" (table of contents; only S35 : CD text).
• ▲▼ ◀▶ to select a group, **ENTER** to confirm your selection.

To search for tracks
• Press ▲▼ to select the "**Find**" item, then press **ENTER** to display the text box.
• To enter a word from the track title you are looking for press ▲▼.
• Press **ENTER** after every letter to confirm it. To delete an entry press ◀.
• Upon completion press ▶ to select "**Find**" and **ENTER** to run the function.
  All entries containing the word you specified are output to the match list.
• Press ▲▼ and **ENTER** to select a track title.
• To look for the first word in a title press ◀ to delete the asterisk.
  All entries starting with the word you specified are output to the match list.
• If there are no matches ("**Not found**") : press **RETURN** to change your search entry.
• "**Prev**"/"**Next**" browses the album for the previous or next group.

DVD-RAM menu

DIRECT NAVIGATOR			
No	Date	On	Program Title
1	9/12 (THU)	16:48	Friends
2	9/12 (THU)	20:00	News

SELECT △

0 ~ 9
SELECT NUMBER   **ENTER** ▽   ◯ **RETURN**

Used   0:01:00

Your DVD player can play DVD-RAM discs recorded in the video recording format, version 1.1, by a DVD video recorder, DVD video camera, computer etc.

• **DIRECT NAVIGATOR** to display/quit the menu.
• Only programme names will be shown that were entered when the RAM was produced.
• Select a programme number using the numeric keys or pressing ▲▼.
  The programme you selected will be played in the background.
• **ENTER** to confirm the setting and hide the on-screen display.

To output a Playlist
This function allows you to play groups of scenes previously produced by means of a DVD video recorder, for example.
• **PLAY LIST** to display the PLAY LIST screen.
• Press ▲▼ or use the numeric keys to select a Playlist.
• **ENTER** to start playing the list.
• |◀◀ ▶▶| skips individual scenes.
• **PLAY LIST** quits the menu.

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General notes on DVDs

DVDs can contain titles and chapters that the producer of the disc put into a specific order.

DVDs feature a Title menu that lists the available titles and chapters.

However, you can choose to select and then play individual titles and chapters.

DVD playback can be controlled and manipulated via the menu that the DVD player outputs to the TV screen.

The audio tracks of many DVDs contain audio material in up to 8 languages.

The DVD menu has an option for selecting the language you prefer.

Many DVDs provide subtitles in several languages.

They may contain material in up to 32 different languages.

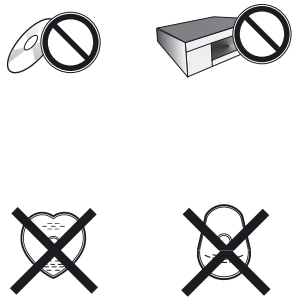Some DVD player functions can be controlled by the DVD itself.
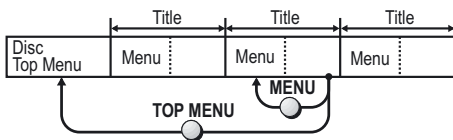
DVD menu

Some DVDs have multiple menus. Pressing "**TOP MENU**" to display the main menu may take to another menu than pressing "**MENU**" to display the menu screen.

* The functions assigned to these buttons depend on the disc.

Please refer to the disc documentation leaflet.

Playing DVDs and VCDs

The producer of the programme material can define the way in which the disc is played.

Consequently, you may sometimes find that, in some cases, you cannot control the playback the way you wish using all of the functions and operations described in these operating instructions.

We therefore recommend that you always read the reference material delivered with the disc.

Never play anything but circular discs with a diameter of 3" (8 cm) or 5" (12 cm).

Discs of other shapes may damage the player hardware.

Cleaning and care: Just use a soft, dry cloth.

Do not use alcohol or benzine.

26

Glossary of technical terms

Analogue:	As opposed to the digital processing method which only knows two states (1 or 0, on or off), analogue processes consist of a multitude of values at any range of infinitely variable steps. This multiplicity is faced by the limited range of possibilities of storing and reproducing the relevant information.
Bitstream:	Multiple-channel digital audio data prior to its decoding and assignment to the different channels.
Brightness signal Y:	Analogue video signal which carries the picture's luminance levels (Y signal or luminance signal) independent of the chrominance signal (C). The result is an improved resolution and higher colour fidelity. This quality can be deployed only if the entire pathway of the signal is Y/C-separated.
Colour difference signals:	The three signals red, green and blue can be converted into three different signals: luminance signal Y (luminous density) and two chrominance signals P_B/P_R or C_B/C_R (colour difference signals).
Digital:	Digitising is a reduction of analogue states. However, due to their limits of perception human individuals will not notice the reduction and therefore experience hardly any or no restrictions. The benefit of digitisation is that digital data can be reproduced in any way but without any loss.
Dolby Digital:	Method of encoding digital signals, developed by Dolby Laboratories. The signals can be either conventional (2-channel) stereo signals or 5.1-channel audio signals. The signals are very much compressed in the process to enable recordings of large volumes of data.
DTS (Digital Theater Systems):	Sound system used in cinemas or movie theaters all over the world. The system is marked by high-quality sound separation. (2-channel or 5.1-channel playback).
MP3:	MP3 or MPEG 1 Audio Layer 3 is a file compression format used for digital audio files. It provides files of an extremely small size and may cause a consequential loss of quality.
Optical digital audio cable:	If you connect the player with this cable, the electronic signals will be converted into optical signals before being output to the amplifier. This method reduces the noise produced by the electronic circuitry.
RGB:	Red Green Blue: The RGB values allow you to define a hue. The actual colour results from the intensity of red, green and blue portions of every pixel.
WMA:	WMA (Windows Media Audio) is a file compression format developed by Microsoft. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.

27

Before requesting service

GENERAL PROBLEMS	
The player does not respond to function key commands:	• Certain control operations are not available with some discs. • Interference caused by lightning or static charge. Press [⏻/I] to put the player into stand-by mode. Restart the player.
The remote control unit does not work:	• Check if the batteries are in the right way round (+ and -). • Point the remote control unit straight at the remote control signal sensor on the front panel.
Playback does not start after pressing PLAY:	• Condensation has accumulated inside the player. Wait for 1 to 2 hours. • The player only supports DVDs with regional code "2", "All" or from a group of regional codes containing regional code "2". • The disc is dirty. • The disc is in the wrong way round. The label of the disc you wish to play must face up.
Unable to change audio track or subtitle languages:	• You can only choose from the languages actually recorded on the disc. • Some discs require you to change languages via the disc menu.
The subtitles are not shown:	• The disc does not provide any subtitles. • You deactivated the display of subtitles. • The subtitles are output to the wrong position. Move the position of subtitles.
The language selected from the menu is not used for the audio track or subtitles:	• The disc does not provide the language you selected.
Unable to change the aspect angle:	• It depends on the disc whether this function is available.
Have you forgotten your password?	• Stop the player and keep pressing player button ◄◄◄◄ together with ❚❚ and ⏏ OPEN/CLOSE until "Initialized" disappears from the screen. This will restore all factory defaults. When you are done switch off the unit and back on afterwards. You will afterwards have to go to the QUICK SETUP menu (page 9) to set up the basic settings again.

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Before requesting service

AUDIO PROBLEMS	
There is no audio output and the sound is distorted:	• Check the connections. • Deactivate the ADVANCED SURROUND effect.
The loudspeakers emit loud noise:	• Go to the SETUP screen and check the **Audio** menu settings of "Dolby Digital","DTS Digital Surround" and "MPEG".

PICTURE PROBLEMS	
The picture is disturbed when searching:	• This is a technical issue and not indicative of a malfunction.
The screen outputs no picture:	• Check the connections. • Verify that the correct video input of the TV set has been selected.
The picture is cut off at its left or right edge:	• Go to the SETUP screen and check the "TV Aspect" setting in the **Video** menu. • Check whether the player is directly plugged into the TV set's "AV IN (Scart)" or whether it is going through a video recorder between the two units. • Check the Zoom setting (page 19).

DISPLAY PROBLEMS	
The message "NO PLAY" appears:	• The player cannot play discs of the current format. • The disc contains no recorded material.
No messages are output to the screen:	• Go to the SETUP screen and set **Display** menu option "On-Screen Messages" to "On".
The OSD displays are cut off along their top edge:	• Move the display position down.
Error code "H □□ " appears: :	• This is indicative of a malfunction. The digits following "H" depend on what state your player is in. • Press [⏻/I] to put the player into stand-by mode, then briefly unplug and re-attach the AC mains cable. • Contact the aftersales service if this does not remove the problem. Please state the error code displayed by the set.
	The model no. and serial no. of this product are stuck down on the rear of the appliance. Please enter them below to serve as reference. **Model No.** _____ **Serial No.** _____

Information

This product features a copyright protection implement whose technology is protected by US patents and intellectual property rights owned by Macrovision Corporation and other copyright proprietors. The use of this copyright protection implement is subject to permission of Macrovision Corporation and is restricted to purely private use only. It is prohibited to examine this appliance for the purpose of unlicensed construction.

Region code: This player accesses the regional codes stored on DVDs. It supports all discs assigned regional code "2" or "ALL". **UK and continental Europe: "2".**

Decoder: This appliance features an internal Dolby Digital decoder and a DTS decoder. You can enjoy these systems in stereo quality without the need of a separate decoder. The display will show "D.Mix" if you have multi-channel sound that can be mixed down to two channels.

Made under licence of Dolby Laboratories.
"Dolby", "Pro Logic" and the twin D symbol are trademarks of Dolby Laboratories.

"DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc.

Windows Media, and the Windows logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.

MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

Language codes

Language	Code	Language	Code	Language	Code	Language	Code	Language	Code	Language	Code	Language	Code	Language	Code
				Esperanto	6979	Hindi	7273	Latin	7665	Oriya	7982	Sindhi	8368	Tigrinya	8473
				Estonia	6984	Hungarian	7285	Latvian	7686	Pashto	8083	Singhalese	8373	Tonga	8479
Abkhazian	6566	Bihari	6672	Faroese	7079	Icelandic	7383	Lingala	7678	Persian	7065	Slovac	8375	Turkish	8482
Afar	6565	Breton	6682	Fiji	7074	Indonesian	7378	Lithunian	7684	Polish	8076	Slovenian	8376	Turkmen	8475
Afrikaans	6570	Bulgarian	6671	Finnish	7073	Interlingua	7365	Macedonian	7775	Portuguese	8084	Somali	8379	Twi	8487
Albanian	8381	Burmese	7789	French	7082	Irish	7165	Malagasy	7771	Punjabi	8065	Spanish	6983	Ukrainian	8575
Ameharic	6577	Byelorussian	6669	Frisian	7089	Italian	7384	Malay	7783	Quechua	8185	Sundanese	8385	Urdu	8582
Arabic	6582	Cambodian	7577	Galician	7176	Japanese	7465	Malayalam	7776	Rhaeto-Rom.	8277	Swahili	8387	Uzbek	8590
Armenian	7289	Catalan	6765	Georgian	7565	Javanese	7487	Maltese	7784	Romanian	8279	Swedish	8386	Vietnamese	8673
Assamese	6583	Chinese	9072	German	6869	Kannada	7578	Maori	7773	Russian	8285	Tagalog	8476	Volapük	8679
Aymara	6588	Corsican	6779	Greek	6976	Kashmiri	7583	Marathi	7782	Samoan	8377	Tajik	8471	Welsh	6789
Azerbaijani	6590	Croatian	7282	Greenlandic	7576	Kazakh	7575	Moldavian	7779	Sanskrit	8365	Tamil	8465	Wolof	8779
Bashkir	6665	Czech	6783	Guarani	7178	Kirghiz	7589	Mongolian	7778	Scots Gaelic	7168	Tatar	8484	Xhosa	8872
Basque	6985	Danish	6865	Gujarati	7185	Korean	7579	Nauru	7865	Serbian	8382	Telugo	8469	Yiddish	7473
Bengali	6678	Dutch	7876	Hausa	7265	Kurdish	7585	Nepali	7869	Serbo-Croat.	8372	Thai	8472	Yoruba	8979
Bhutani	6890	English	6978	Hebrew	7387	Laotian	7679	Norwegian	7879	Shona	8378	Tibetan	6679	Zulu	9085

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Specifications

Disc formats S35 / S31							
DVD-Video	DVD-R	DVD-Audio	DVD-RAM	SVCD	Video-CD	CD	CD-R/RW
DVD VIDEO™ / **DVD** VIDEO™	**DVD** R R4.7	**DVD** AUDIO™	**DVD** RAM RAM 4.7	COMPACT disc SUPER VIDEO	COMPACT disc DIGITAL VIDEO	COMPACT disc DIGITAL AUDIO TEXT / COMPACT disc DIGITAL AUDIO	---
DVD-V		DVD-A	RAM	VCD		CD	WMA MP3 JPEG

* It may not be possible to play CD-R, CD-RW, DVD-R and DVD-RAM in all cases due to the type of disc or condition of the recording.

Power supply:	220-240 Volt mains voltage, 50Hz	**Compatible TV systems:**	PAL 625/50, PAL525/60, NTSC	**Audio output signal ratings:** **Frequency response:**	
Power consumption:	13 Watt			DVD (linear PCM audio):	4 Hz to 22 kHz (sampling frequency 48 kHz)
Power consumption in stand-by: approx. 2 Watt		**Video output:**			4 Hz to 44 kHz
		Output level:	1 Vss (75 Ohm)		(sampling frequency 96 kHz)
Dimensions:	430(W) x 260(D) x 60(H) mm	Output socket:	Female cinch	Audio CD:	4 Hz to 20 kHz
Weight:	2.1 kg			Signal-to-noise ratio:	
Operating temp. range:	+41°F to +95°F(+5°C to +35°C)	**Scart output:**		• Audio CD:	115 dB
Humidity during operation:	5 to 90 % rel. humidity (non-condensing)	RGB output level:	0.7 Vss (75 Ohm)	Volume range:	
		Video output level:	1 Vss (75 Ohm)	• DVD (linear PCM audio):	102 dB
Compatible disc formats:	DVD-V, DVD-A, DVD-RAM, DVD-R, VCD, SVCD, CD-Audio (CD-DA), CD-R/CD-RW (discs formatted as CD-DA or Video CD)	C output level:	PAL/PAL 60 : 0.3 Vss; NTSC : 0.286 Vss (75 Ohm)	• Audio CD:	98 dB
		Output socket:	21-pin AV Scart (RGB/S-Video included)	Total distortion factor:	
				• Audio CD:	0.0025 %
WMA, MP3 :	Max. 999 tracks/ 99 groups.	**Component video output:**		**Digital audio output:**	
Compatible compression rate:		Y output level (green):	1Vss (75 Ohm)	Optical digital sound	
MP3 :	32 - 320 kbps	P_B output level (blue):	0.7 Vss (75 Ohm)	output socket:	Optical connection
WMA :	48 - 192 kbps.	P_R output level (red):	0.7 Vss (75 Ohm)	Wavelength:	658 nm /790 nm
JPEG :	Exif Version 2.1. Max. 3000 pictures and 300 groups; Picture resolution between 320 x 240 and 6144 x 4096 ;	**Audio output:**		Laser classification:	Class 2/Class 1
		Output level:	2 V eff. (1 kHz, 0 dBFs)	• Technical specifications subject to change without notice.	
		Output sockets:	Female cinch / AV 2 channels (L/R)	• Weight and dimensions are approximate values.	
JPEG format :	4:2:2 or 4:2:0.				

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CE — This equipment complies with European conformity requirements, in accordance with the conditions of electromagnetic compatibility and product safety.

回 — This equipment complies with the requirements of protection class 2.

Ⓢ — This equipment complies with the safety requirements of SEMKO.